

ABSTRACT

A process for the production of a silica coating on a glass substrate provides a precursor mixture of SiH₄, NH₃, and O₂, preferably in the presence of C₂H₄ and an inert carrier gas. The precursor mixture is directed along a surface of the glass substrate in an atmospheric pressure, on-line, chemical vapor deposition process. The precursor mixture is reacted at the surface of the glass substrate to form a silica coating, essentially devoid of nitrogen, on the glass substrate.